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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,477	09/29/2004	Hendrik Roelof Stapert	NL 020267	8077

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EXAMINER	
YI, STELLA KIM	
ART UNIT	PAPER NUMBER
1791	
MAIL DATE	DELIVERY MODE
03/09/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/509,477	STAPERT ET AL.	
	Examiner	Art Unit	
	Stella Yi	1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 October 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-18* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-18* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1, 17, and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term “such as” renders the claims indefinite.

3. Claims 2, 8, and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte*

Hasche, 86 USPQ 481 (Bd. App. 1949). In the present instance, claims 2, 8, and 14 recites the broad recitation "Z or Y can be also a thiol group in combination with other radically polymerisable monomers in such a way that crosslinked polymers are obtained", and the claim also recites "Z and Y are independently chosen from the groups consisting of polymerisable (meth)acrylate, oxetane, glycidylether, allylether, epoxy, vinylether and vinylester, or mixtures thereof" which is the narrower statement of the range/limitation.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1, 2, 5-8, 11-14, and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over SINGH et al. (5,204,126) and in further view of YAMANA et al. (5,804,674).

Regarding Claims 1, 6, 7, 12, and 13, SINGH et al. discloses a method of molding optical lenses comprising a plurality of mold components with molding surfaces together defining a molding cavity (Figure 4) wherein said mold is obtained by polymerizing film forming substances containing polymerizable moieties that are polymerized by heating (Col.3, lines 27-40). SINGH et al. teach that a mold internally

shaped for casting optical lenses therein have internal surfaces coated with a film in accordance with the method of:

- providing a composition of polymerizable molecules;
- applying said composition to said mold surfaces; and
- leaving said composition on said surfaces for a sufficient period of time to allow a sufficient number of said molecules to migrate from said composition toward said surfaces and to spontaneously self-assemble in-situ on said surfaces and attach themselves thereto to form a substantially continuous thin film thereon (Col.10, lines 50-66).

SINGH et al. is silent to the polymerizable compound being that of the compound in instant claim 1. However, YAMANA et al. discloses a mold release agent superior in a release performance for various molding materials giving a long mold release life and improves surface finishing properties of a molded article (Col.2, lines 28-32). The said mold release agent comprises a polymerizable compound containing:

A) a silane compound represented by the general formula:

$$(R^1O)_nSiR^2_{4-n}$$

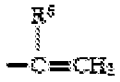
wherein R1 is a hydrocarbon group or a halogenated hydrocarbon group, or

$$-N=\overset{R^3}{\overset{|}{C}}-R^4$$

(each of R3 and R4 is a hydrocarbon group having 1 to 4 carbon atoms),

$$-COR^5$$

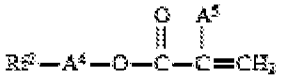
(R5 is a hydrocarbon group having 1 to 4 carbon atoms) or



(R6 is a hydrocarbon group having 1 to 4 carbon atoms);

R2 is hydrocarbon group or halogenated hydrocarbon group having 1 to 4 carbon atoms; and n is 3 or 4 (Col.2, lines 39-51) (represents Y and/or Z polymerisable groups of instant claims); and

B) a fluorine-containing compound having at least two hydroxyl groups or alkoxyl groups in one molecule. It may be represented by the formula:



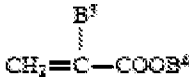
Wherein Rf2 is a perfluoroalkyl group having 6 to 21 carbon atoms;

A4 is an alkylene group having 1 to 6 carbon atoms; and

A5 is a hydrogen atom or a methyl group (Col.6, lines 57-66). Specific examples of compound B) are

$CH_2=CHCO_2CH_2CH_2(CF_2)_7CF_3$,
$CH_2=C(CH_3)CO_2CH_2(CF_2)_8CF_3$,
$CH_2=CHCO_2(CH_2)_6(CF_2)_{13}CF_3$,
$CH_2=CHCO_2CH(CH_3)CH_2(CF_2)_8CF(CH_3)_2$,
$CH_2=C(CH_3)CO_2CH_2CH_2(CF_2)_{16}CF(CH_3)_2$ and
$CH_2=CHCO_2CH_2CH_2(CF_2)_4CF_3$. (Col.7, lines 22-29) (represents X as a polymerisable group of instant claims); and

C) a polymer of a perfluoroalkyl group-containing (meth) acrylate ester (Col.2, lines 66-67) represented by the formula:



Wherein each of B1 and B3 is a hydrogen atom, a fluorine atom or a methyl group (Col.8, lines 25-27) (represents Y or Z polymerisable groups of instant claims).

Furthermore, YAMANA et al. teach that the said release agent is applied to an internal surface of a mold; curing the mold release agent to form a cured film in the mold wherein curing is formed by heat (Col.10, lines 1-22); charging a molding composition in the mold: molding the molding composition to a molded article; and demolding the molded article from the mold (Col.22, lines 17-22).

SINGH et al. discloses a need for a mold surface with ultra thin film that remains on the substrate surface and provides excellent abrasion resistance along with excellent release properties (Col.3, lines 17-20). YAMANA et al. provides a release agent that is formed into a cured film that is superior in a release performance for various molding materials giving a long mold release life and improves surface finishing properties of a molded article (Col.2, lines 28-32). Therefore, it would have been obvious to one of ordinary skill in the art to have modified the method of molding optical lenses wherein said mold is obtained by polymerizing film forming substances containing polymerizable moieties of SINGH et al. to include the particular release agent comprising the polymerizable moieties groups A, B, and C of YAMANA et al. to prevent abrasion on molded articles and provide excellent release of the molded articles from the mold.

Regarding Claims 2, 8, and 14, YAMANA et al. discloses said polymerizable groups comprises butyl vinyl ether, vinyl acetate, and (meth)acrylate (Col.7, lines 52-55).

Regarding Claims 5, 11, and 17, YAMANA et al. discloses that the weight ratio of the silane compound (A) to the flourine-containing compound (B) is from 2/98 to 30/70 in order to obtain a good crosslinked film for superior mold releasability (Col.9, lines 25-30).

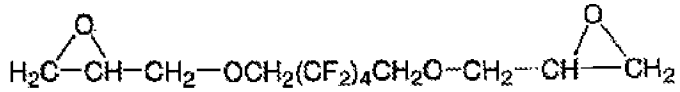
Regarding Claim 18, SINGH et al. discloses the shape of the mold to be aspherical and is made of said polymerisable material (See Figure 4 and Col.3, lines 27-40) but is silent to an aspect ratio of the layer thickness. However, it would have been a matter of choice which a person of ordinary skill in the art would have found obvious absent persuasive evidence that the aspect ratio of the layer thickness was significant.

3. Claims 3, 10, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over SINGH et al. (5,204,126) in view of YAMANA et al. (5,804,674) as applied to claims 1, 2, 5-8, 11-14, and 17-18 above, and in further view of NAKAKIMURA et al. (JP 10-190245).

The teachings of SINGH et al. and YAMANA et al. are applied as described above for claims 1, 2, 5-8, 11-14, and 17-18.

Regarding Claims 3, 10, and 16, modified SINGH et al. does not explicitly disclose the starting material as 2,2'-(2,2,3,3,4,4,5,5-octafluoro 1,6-hexanyloxymethyl)

diepoxide. However, NAKAKIMURA et al. discloses in Formula 5:



which is the starting material of the claimed invention comprising glycidylether groups used for optical lenses. It would have been obvious to one of ordinary skill in the art to have incorporated the said starting material of NAKAKIMURA et al. for the method of molding optical lenses of modified SINGH et al. for the purpose of fabricating an optical device from a material known in the art to be suited for optical applications.

8. Claims 4, 9, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over over SINGH et al. (5,204,126) in view of YAMANA et al. (5,804,674) as applied to claims 1, 2, 5-8, 11-14, and 17-18 above, and in further view of TAKAHASHI ("Improvement of Photo Cured Composite Resin Using Low Viscosity Monomer Substituted by Fluorine" by Journal of the Japanese Society for Dental Materials and Devices).

The teachings of SINGH et al. and YAMANA et al. are applied as described above for claims 1, 2, 5-8, 11-14, and 17-18.

Regarding Claims 4, 9, and 15, modified SINGH et al. does not explicitly disclose the starting material as 2,2,3,3,4,4,5,5-octafluoro 1,6-hexanediol-dimethacrylate. However, TAKAHASHI discloses a photocurable fluorinated monomer FHDDMA (2,2,3,3,4,4,5,5-octafluoro 1,6-hexanediol-dimethacrylate) (Abstract). It would have been obvious to one of ordinary skill in the art to have incorporated the photocurable

polymerizable monomer of TAKAHASHI for the organic material of modified SINGH et al. for the purpose of curing the polymerizable material of modified SINGH et al.

Response to Arguments

1. Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stella Yi whose telephone number is 571-270-5123. The examiner can normally be reached on Monday - Thursday from 8:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christina Johnson can be reached on 571-272-1176. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SY

/Jeff Wollschlager/
Primary Examiner, Art Unit 1791